

## ARMY PROGRAMS

### Suite of Integrated Radio Frequency Countermeasures (SIRFC) (AN/ALQ-211)

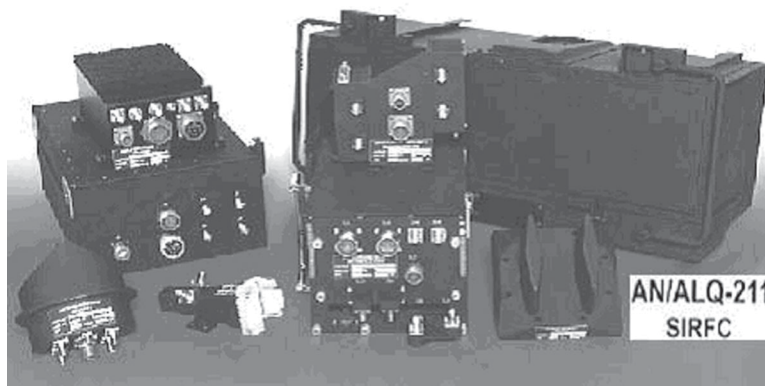
The Army and Special Operations Command intend for the Suite of Integrated Radio Frequency Countermeasures (SIRFC) to be an integrated aircraft survivability system that provides defensive, offensive, active, and passive countermeasures to ensure optimum protection for the host aircraft. Original plans called for integration of the system on the AH-64D, MH-60K, and MH-47E helicopters, and the CV-22 and U-2 fixed-wing platforms. The lead aircraft for SIRFC integration and test and evaluation was the AH-64D Longbow Apache; however, the Army decided that SIRFC is no longer required on that platform. Development continues for Special Operations Command Aircraft, MH-47G, MH-60M, and CV-22.

SIRFC consists of two required sub-systems, the Advanced Threat Radar Jammer and the Advanced Threat Radar Warning Receiver. The system provides warning (situational awareness), active jamming (self-protection), and when necessary, expendable countermeasures control to defeat threat radar guided weapon systems. Future integration of SIRFC with the Suite of Integrated Infrared Counter Measures on the MH-47G and MH-60M will optimize multi-spectral threat countermeasures for those aircraft. SIRFC achieved Milestone II in FY95 resulting in an Engineering and Manufacturing Development (EMD) contract to produce five test articles supporting Test and Evaluation through IOT&E.

The contractor delivered the first EMD test articles in FY99 and installed them on the AH-64D Longbow Apache for integration testing. Upon SIRFC installation on the AH-64D Apache, the test team encountered several integration performance problems with the Operational Flight Program software. These problems led the Program Manager to stop test efforts on the AH-64D until integrated performance issues could be resolved. An additional year was inserted into the EMD Phase to allow time in the schedule to sufficiently analyze discovered deficiencies, develop and implement corrections, and properly evaluate software performance.

The government conducted developmental flight tests in July and August 2001 and a limited user test (LUT) in September and October 2001. Analysis of the performance in the developmental test and the LUT indicated that, while SIRFC effectiveness as a radar warning receiver (RWR) was superior to that of other RWRs tested, there were some deficiencies in its performance. The effectiveness of its jamming in increasing the survivability of the host aircraft in a threat environment was poor. As a result, the Army awarded a correction of deficiencies contract to the system development contractor for development of corrective actions. The Technology Application Program Office at Fort Eustis, Virginia, assumed test responsibilities following the Army's decision to not continue development other than for Special Operations applications. The Army Test and Evaluation Command concluded its test support on the SIRFC system in 2001.

The Army made a low-rate initial production (LRIP) decision to produce additional units for test and integration on follow-on platforms in May 2002, with full-rate production Milestone III scheduled for FY05. The corrective actions will be implemented in the LRIP units for further testing. SIRFC has not yet undergone an IOT&E and will undergo operational testing, planned for FY2005, before the full-rate production decision. However, two additional LRIP buys totaling 18 systems are planned prior to the conduct of IOT&E.



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## **TEST & EVALUATION ACTIVITY**

Test activity in FY03 consisted of laboratory tests at Fort Monmouth, New Jersey, and was to evaluate performance of the corrective actions and incremental software drops.

## **TEST & EVALUATION ASSESSMENT**

Results of the tests at Fort Monmouth have shown promise; however, a true indication of the performance of the upgraded SIRFC will not be available until the developmental test and operational flight tests that begin in FY04.

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